

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An improved phosphor structure for an electroluminescent display, said structure comprising a phosphor laminate of;

- a blue light emitting phosphor thin film layer;
- a fluoride containing layer provided directly adjacent and in contact with said phosphor thin film layer, wherein said fluoride containing layer is provided on the top and/or bottom of said phosphor thin film layer and fluorine from said fluoride containing layer partially infused into said phosphor thin film layer, without adverse effects on luminosity of the phosphor, the fluoride layer together with the phosphor layer forming the phosphor laminate;

wherein said blue light emitting phosphor thin film layer is selected from the group consisting of a rare earth metal activated barium thioaluminate and a rare earth metal activated magnesium barium thioaluminate.

2. (Canceled)

3. (Previously Presented) The structure of claim 1, wherein said phosphor thin film layer is represented by $Mg_wBa_{x-w}Al_yS_z:Eu$ where $w = 0 - 0.2$, $x = 1.0$, $y = 2.0 - 6.0$ and $z = 4.0 - 10.0$.

4. (Original) The structure of claim 3, wherein said fluoride containing layer is selected from aluminum fluoride and alkaline earth fluoride compounds and mixtures thereof.

5. (Original) The structure of claim 4, wherein said alkaline earth fluoride compounds are selected from the group consisting of barium fluoride and magnesium fluoride.

6. (Original) The structure of claim 4, wherein said fluoride containing layer has a thickness of about 5 nm to about 50 nm.

7. (Canceled)

8. (Original) The structure of claim 4, wherein said structure comprises a fluoride containing layer on the top of said phosphor thin film layer and a fluoride containing layer on the bottom of said phosphor thin film layer.

9. (Original) The structure of claim 4, wherein said structure is annealed onto a substrate at an annealing temperature of up to about 700°C.

10. (Original) The structure of claim 9, wherein said structure is annealed onto a substrate at an annealing temperature of up to about 650°C.

11. (Original) The structure of claim 10, wherein said structure is annealed onto a substrate at an annealing temperature of about 600°C.

12. (Original) The structure of claim 9, wherein said substrate is selected from the group consisting of glass and glass ceramic.

13. (Original) The structure of claim 4, wherein said fluoride containing layer is deposited by electron beam evaporation.

14. (Original) The structure of claim 13, wherein said fluoride containing layer is co-deposited with said phosphor thin film.

15. (Original) The structure of claim 3, wherein said phosphor thin film layer additionally comprises oxygen.

16. (Original) The structure of claim 15, wherein said phosphor thin film layer contains up to about 25 atomic percent oxygen.

17. (Original) A thick film dielectric electroluminescent device constructed on a glass or glass ceramic substrate and comprising;

- an europium activated barium thioaluminate or magnesium barium thioaluminate phosphor film, wherein said phosphor film is in contact with at least one fluoride containing thin film.

18. (Original) The device of claim 17, wherein said fluoride containing thin film is selected from the group consisting of an alkaline earth fluoride, aluminum fluoride and mixtures thereof.

19. (Original) The device of claim 18, wherein said alkaline earth fluoride is selected from the group consisting of barium fluoride and magnesium fluoride.

20. (Original) The device of claim 18, wherein said fluoride containing thin film has a thickness of about 5 nm to about 50nm.

21. (Original) The device of claim 20, wherein said fluoride containing thin film has a thickness of about 20nm to about 30 nm.

22. (Original) The device of claim 21, wherein said phosphor film is represented by $Mg_wBa_{x-w}Al_yS_z:Eu$ where $w = 0 - 0.2$, $x = 1.0$, $y = 2.0 - 6.0$ and $z = 4.0 - 10.0$.

23. (Original) The device of claim 22, wherein said phosphor film has a thickness of about 400nm to about 600nm.

24. (Original) The device of claim 22, wherein said phosphor film has oxygen incorporated therein.

25. (Original) The device of claim 24, wherein said phosphor film has up to 25% atomic percent oxygen.

26. (Original) The device of claim 17, wherein said phosphor film is annealed at a temperature of up to about 700°C.

27. (Original) The device of claim 26, wherein said phosphor film is annealed onto said substrate at an annealing temperature of up to about 650°C.

28. (Original) The device of claim 27, wherein said phosphor film is annealed onto said substrate at an annealing temperature of about 600°C.

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)

46. (Previously Presented) An electroluminescent display comprising:

a substrate comprised of glass or glass ceramic;

a metal conductor layer;

a smoothing layer;

an annealed phosphor laminate of,

a blue light emitting phosphor thin film layer;

a fluoride containing layer provided directly adjacent and in contact with said phosphor thin film layer, said fluoride containing layer provided on the top and/or bottom of said phosphor thin film layer, and fluorine from said fluoride containing layer partially infused into said phosphor thin film layer, wherein the fluoride layer together with the phosphor layer form the phosphor laminate; and

said blue light emitting phosphor thin film layer selected from a group consisting of a rare earth metal activated barium thioaluminate and a rare earth metal activated magnesium barium thioaluminate.

47. (Previously Presented) The device according to claim 46 wherein,

the phosphor layer is the barium thioaluminate activated with europium;

the thin film dielectric layer is a barium titanate layer; and

the fluoride layer is an aluminum fluoride layer.

48. (Previously Presented) The device according to claim 47, configured to have a luminance at about 60 volts above a threshold voltage of about 120 volts of about 200 candelas per square meter.